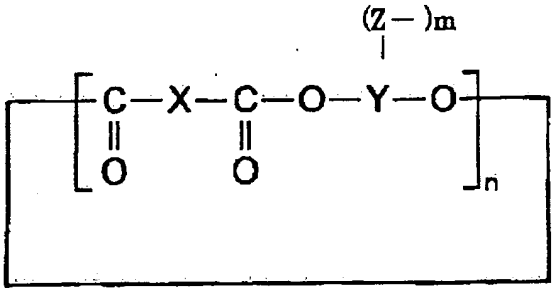
WHAT IS CLAIMED IS:

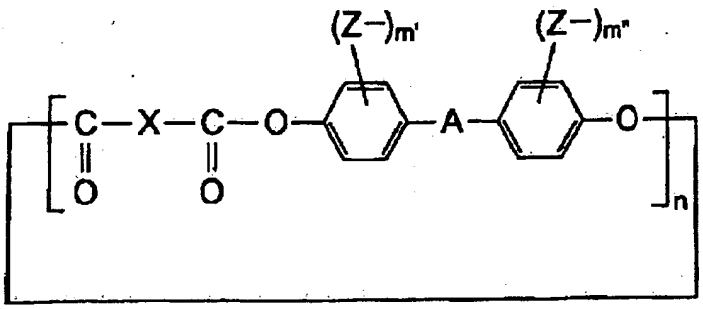
1. A polymer compound comprising a cyclic structure represented by the following general formula (1):



(1)

wherein X represents a group selected from the group consisting of an alkylene group, an arylene group, an arylalkylene group, an alkylarylene group, halogenated alkylene group and halogenated arylene group; Y represents a group selected from the group consisting of an alkylene group, an arylene group, an arylalkylene group, an alkylarylene group, a halogenated alkylene group and a halogenated arylene group; Z represents a bond derived from an alkylene group having from 1 to 20 carbon atoms, an ester group, a urethane group, an amide group or an ether group, which is bonded to a group represented by Y belonging to another cyclic structure; m represents 0 or an integer of 1 or more; and n represents an integer of 2 or more, provided that the integer represented by m is independent in respective repeating units, and a total number of the bond represented by Z is 1 or more.

2. A polymer compound as claimed in claim 1, wherein the cyclic structure is represented by the following general formula (2):

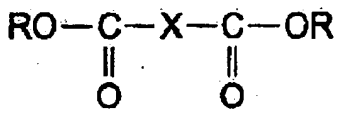


(2)

wherein X and A are the same as or different from each other and each represents a group selected from the group consisting of an alkylene group, an arylene group, an arylalkylene group, an alkylarylene group, halogenated alkylene group and halogenated arylene group; Z represents a bond derived from an alkylene group having from 1 to 20 carbon atoms, an ester group, a urethane group, an amide group or an ether group, which is bonded to a group represented by Y belonging to another cyclic structure; m' and m" each represents an integer of from 0 to 4; and n represents an integer of 2 or more, provided that the integers represented by m' and m" each is independent in respective repeating units, and a total number of the bond represented by Z is 1 or more.

3. A process for producing a polymer compound comprising the steps of:

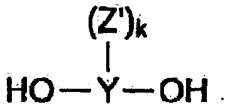
a first step for subjecting a raw material mixture to esterification or ester exchange to obtain a composite, the raw material mixture containing a compound represented by the following general formula (3):



(3)

wherein X represents a group selected from the group consisting of an alkylene group, an arylene group, an arylalkylene group, an alkylarylene group, halogenated alkylene group and halogenated arylene group; and R represents a group selected from the group consisting of a hydrogen atom and a hydrocarbon group, and a compound represented by the following general formula (4):

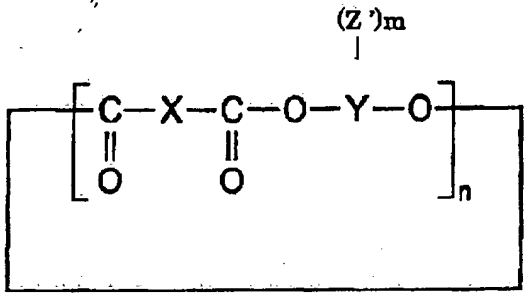
wherein Y represents a group selected from the group consisting of an alkylene group,



(4)

an arylene group, an arylalkylene group, an alkylarylene group, halogenated alkylene group and halogenated arylene group; Z' represents a reactive group capable of forming a group selected from the group consisting of an alkenyl group, an ester group, a urethane group, an amide group and an ether group; and k represents an integer of 1 or more,

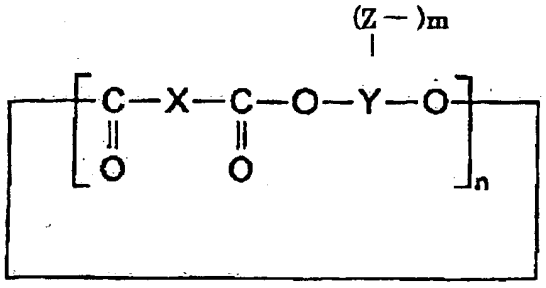
a second step for subjecting the composite to a polycondensation reaction under reduced pressure to obtain a cyclic oligomer represented by the following general formula (5):



(5)

wherein X represents a group selected from the group consisting of an alkylene group, an arylene group, an arylalkylene group, an alkylarylene group, halogenated alkylene group and halogenated arylene group; Y represents a group selected from the group consisting of an alkylene group, an arylene group, an arylalkylene group, an alkylarylene group, a halogenated alkylene group and a halogenated arylene group; Z' represents a reactive group capable of forming a group selected from the group consisting of an alkenyl group, an ester group, a urethane group, an amide group and an ether group; m represents 0 or an integer of 1 or more; and n represents an integer of 2 or more, provided that the integer represented by m is independent in respective repeating units, and a total number of the bond represented by Z' is 1 or more, and

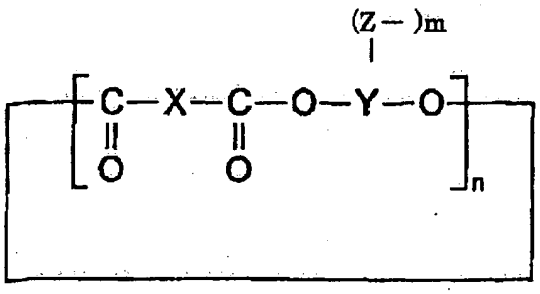
a third step for reacting the oligomer to obtain a polymer compound having a cyclic structure represented by the following general formula (1):



(1)

wherein X represents a group selected from the group consisting of an alkylene group, an arylene group, an arylalkylene group, an alkylarylene group, halogenated alkylene group and halogenated arylene group; Y represents a group selected from the group consisting of an alkylene group, an arylene group, an arylalkylene group, an alkylarylene group, a halogenated alkylene group and a halogenated arylene group; Z represents a bond derived from an alkylene group having from 1 to 20 carbon atoms, an ester group, a urethane group, an amide group or an ether group, which is bonded to a group represented by Y belonging to another cyclic structure; m represents 0 or an integer of 1 or more; and n represents an integer of 2 or more, provided that the integer represented by m is independent in respective repeating units, and a total number of the bond represented by Z is 1 or more.

4. A molded article comprising a polymer compound comprising a cyclic structure represented by the following general formula (1):



(1)

wherein X represents a group selected from the group consisting of an alkylene group, an arylene group, an arylalkylene group, an alkylarylene group, halogenated alkylene group and halogenated arylene group; Y represents a group selected from the group consisting of an alkylene group, an arylene group, an arylalkylene group, an

alkylarylene group, a halogenated alkylene group and a halogenated arylene group; Z represents a bond derived from an alkylene group having from 1 to 20 carbon atoms, an ester group, a urethane group, an amide group or an ether group, which is bonded to a group represented by Y belonging to another cyclic structure; m represents 0 or an integer of 1 or more; and n represents an integer of 2 or more, provided that the integer represented by m is independent in respective repeating units, and a total number of the bond represented by Z is 1 or more.

5. A molded article as claimed in claim 4, wherein the molded article is produced by extrusion molding.

6. A molded article as claimed in claim 4, wherein the molded article is produced by coating.

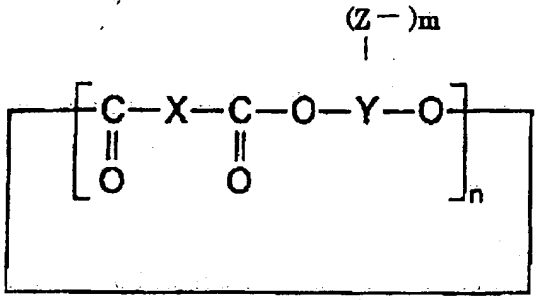
7. A molded article as claimed in claim 4, wherein the molded article further comprising a functional material having a molecular weight of 3,000 or less.

8. A molded article as claimed in claim 7, wherein the functional material exhibits electroconductivity.

9. A molded article as claimed in claim 7, wherein the functional material exhibits wavelength-selective absorbance.

10. A process for producing a molded article comprising the steps of:

melting a polymer compound comprising a cyclic structure represented by the following general formula (1):



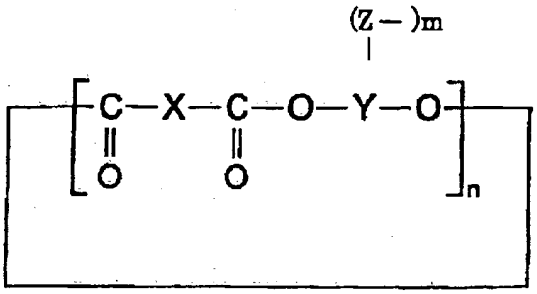
(1)

wherein X represents a group selected from the group consisting of an alkylene group, an arylene group, an arylalkylene group, an alkylarylene group, halogenated alkylene group and halogenated arylene group; Y represents a group selected from the group consisting of an alkylene group, an arylene group, an arylalkylene group, an alkylarylene group, a halogenated alkylene group and a halogenated arylene group; Z represents a bond derived from an alkylene group having from 1 to 20 carbon atoms, an ester group, a urethane group, an amide group or an ether group, which is bonded to a group represented by Y belonging to another cyclic structure; m represents 0 or an integer of 1 or more; and n represents an integer of 2 or more, provided that the integer represented by m is independent in respective repeating units, and a total number of the bond represented by Z is 1 or more, and

subjecting the molten polymer compound to extrusion molding in a prescribed mold.

11. A process for producing a molded article comprising the steps of:

coating a coating composition containing a polymer compound comprising a cyclic structure represented by the following general formula (1):



(1)

wherein X represents a group selected from the group consisting of an alkylene group, an arylene group, an arylalkylene group, an alkylarylene group, halogenated alkylene group and halogenated arylene group; Y represents a group selected from the group consisting of an alkylene group, an arylene group, an arylalkylene group, an alkylarylene group, a halogenated alkylene group and a halogenated arylene group; Z represents a bond derived from an alkylene group having from 1 to 20 carbon atoms, an ester group, a urethane group, an amide group or an ether group, which is bonded to a group represented by Y belonging to another cyclic structure; m represents 0 or an integer of 1 or more; and n represents an integer of 2 or more, provided that the integer represented by m is independent in respective repeating units, and a total number of the bond represented by Z is 1 or more, and

drying the coating composition thus coated.

12. A process for producing a molded article as claimed in claim 11, wherein the coating composition further contains a functional material having a molecular weight of 3,000 or less.

13. A process for producing a molded article as claimed in claim 12, wherein the functional material exhibits electroconductivity.

14. A process for producing a molded article as claimed in claim 11, wherein the functional material exhibits wavelength-selective absorbance.